STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

May 19, 2014

Mr. Chris Cording
President
e-copy: chris.cording@glasway.com
1450 Lincoln Street
KIngsport, TN 37662

Subject: **Draft of NPDES Permit No. TN0081582**
Heritage Glass, LLC
Kingsport, Sullivan County, Tennessee

Dear Mr. Cording:

Enclosed please find a draft copy of the NPDES permit which the Division of Water Resources (the division) proposes to issue. This draft copy is furnished to you solely for your review of its provisions. This permit authorizes no wastewater discharges. The issuance of an official permit is contingent upon your meeting all of the requirements of the Tennessee Water Quality Control Act and the Rules and Regulations of the Water Quality, Oil and Gas Board.

Also enclosed is a copy of the public notice that announces our intent to issue this permit. The notice affords the public an opportunity to review the draft permit and, if necessary, request a public hearing on this issuance process. If you disagree with the provisions and requirements contained in the draft permit, you have thirty-five days from the date of this correspondence to notify the division of your objections. If your objections cannot be resolved, you may appeal this permit upon issuance. This appeal should be filed in accordance with Section 69-3-110 of the Tennessee Code Annotated.

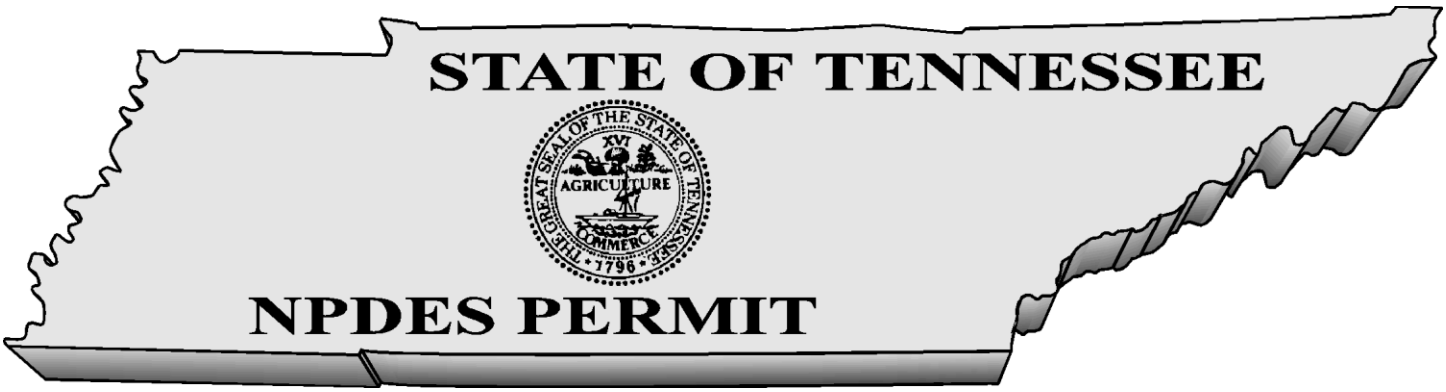
If you have questions, please contact the Johnson City Environmental Field Office at 1-888-891-TDEC; or, at this office, please contact Ms. Maybelle T. Sparks at (615) 532-0651 or by E-mail at *Maybelle.Sparks@tn.gov*.

Sincerely,

Vojin Janjić
Manager, Water-Based Systems

Enclosure

cc: Permit File
Johnson City Environmental Field Office



No. TN0081582

Authorization to discharge under the
National Pollutant Discharge Elimination System (NPDES)

Issued By

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

Under authority of the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.) and the delegation of authority from the United States Environmental Protection Agency under the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (33 U.S.C. 1251, et seq.)

Discharger:	**Heritage Glass, LLC**
is authorized to discharge:	**filter backwash, non-contact cooling water, storm water, glass washing wastewater and glass edger wastewater through Outfall 001 and industrial stormwater runoff from Outfalls SW1 and SW2**
from a facility located:	**in Kingsport, Sullivan County, Tennessee**
to receiving waters named:	**South Fork Holston River and and Mad Branch to South Fork Holston River**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on:

This permit shall expire on:

Issuance date:

for Sandra K. Dudley, Ph.D., P.E.
Director

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MTS

TN0081582.DOC

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Heritage Glass, LLC is authorized to discharge filter backwash, non-contact cooling water, storm water, glass washing wastewater and glass edger wastewater through Outfall 001 and industrial stormwater through Outfalls SW1 and SW2 to the South Fork Holston River and Mad Branch to South Fork Holston River. Process wastewater discharged through Outfall 001 is monitored at the internal monitoring point, IMP 01A.

These discharges shall be limited and monitored by the permittee as specified below:

PERMIT LIMITS

OUTFALL 001
NON-CONTACT COOLING WATER AND OVERFLOWS FROM THE GLASS WASHING AND GLASS EDGER WASTEWATERS

	EFFLUENT LIMITATIONS				MONITORING REQUIREMENTS	
	MONTHLY		DAILY			
EFFLUENT CHARACTERISTIC	AVG. CONC. (mg/l)	AVG. AMNT. (lb/day)	MAX. CONC. (mg/l)	MAX. AMNT. (lb/day)	MSRMNT. FRQNCY.	SAMPLE TYPE
FLOW *			Report (MGD)		2/Month	Instantaneous
TOTAL SUSPENDED SOLIDS (TSS)	30.0		40.0		2/Month	Grab
OIL & GREASE	10.0		15.0		2/Month	Grab
pH **	Range 6.0 - 9.0				1/Month	Grab
TEMPERATURE	Report				1/Month	Grab
ALUMINUM	--	--	Report	--	1/Quarter	Grab
COPPER	--	--	Report	--	1/Quarter	Grab
CHLORINE, TOTAL RESIDUAL (TRC)	--	--	2.0	--	2/Month	Grab

* Flow shall be reported in Million Gallons per Day (MGD).
** pH and TRC analyses shall be performed within fifteen (15) minutes of sample collection.

PERMIT LIMITS

Internal Monitoring Point - IMP 01A
STORMWATER, FILTER BACKWASH, GLASS WASHING AND GLASS EDGER WASTEWATERS

	EFFLUENT LIMITATIONS				MONITORING REQUIREMENTS	
	MONTHLY		DAILY			
EFFLUENT CHARACTERISTIC	AVG. CONC. (mg/l)	AVG. AMNT. (lb/day)	MAX. CONC. (mg/l)	MAX. AMNT. (lb/day)	MSRMNT. FRQNCY.	SAMPLE TYPE
FLOW *			Report (MGD)		2/Month	Instantaneous
TOTAL SUSPENDED SOLIDS (TSS)		71.5		114.3	2/Month	Grab
OIL & GREASE		37.2		37.2	2/Month	Grab
pH **	Range 6.0 - 9.0				1/Month	Grab
SOLIDS, SETTLEABLE	--	--	0.5 ml/l	--	1/Month	Grab

* Flow shall be reported in Million Gallons per Day (MGD).
** pH analysis shall be performed within fifteen (15) minutes of sample collection.

PERMIT LIMITS

SW1
STORMWATER

EFFLUENT	EFFLUENT LIMITATIONS				MONITORING REQUIREMENTS	
	MONTHLY		DAILY			
CHARACTERISTIC	AVG. CONC. (mg/l)	AVG. AMNT. (lb/day)	MAX. CONC. (mg/l)	MAX. AMNT. (lb/day)	MSRMNT. FRQNCY.	SAMPLE TYPE
FLOW *			Report (MGD)		2/year	Instantaneous
TOTAL SUSPENDED SOLIDS (TSS)	Report		Report		2/Year	Grab
OIL & GREASE	Report		Report		2/Year	Grab

* Flow shall be reported in Million Gallons per Day (MGD).
The division recognizes that stormwater cannot be effectively segregated from the non-contact cooling water and process wastewaters.

PERMIT LIMITS

SW2
STORMWATER

EFFLUENT	EFFLUENT LIMITATIONS				MONITORING REQUIREMENTS	
	MONTHLY		DAILY			
CHARACTERISTIC	AVG. CONC. (mg/l)	AVG. AMNT. (lb/day)	MAX. CONC. (mg/l)	MAX. AMNT. (lb/day)	MSRMNT. FRQNCY.	SAMPLE TYPE
FLOW *			Report (MGD)		2/year	Instantaneous
TOTAL SUSPENDED SOLIDS (TSS)	Report		Report		2/Year	Grab
OIL & GREASE	Report		Report		2/Year	Grab

* Flow shall be reported in Million Gallons per Day (MGD).
The division recognizes that stormwater cannot be effectively segregated from the filter backwash.

Additional monitoring requirements and conditions applicable to Outfalls 001, SW1 and SW2 include:

There shall be no distinctly visible floating scum, oil or other matter contained in the wastewater discharge. The wastewater discharge must not cause an objectionable color contrast in the receiving stream.

The wastewater discharge shall not contain pollutants in quantities that will be hazardous or otherwise detrimental to humans, livestock, wildlife, plant life, or fish and aquatic life in the receiving stream.

Sludge or any other material removed by any treatment works must be disposed of in a manner, which prevents its entrance into or pollution of any surface or subsurface waters. Additionally, the disposal of such sludge or other material must be in compliance with the Tennessee Solid Waste Disposal Act, TCA 68-31-101 et seq. and the Tennessee Hazardous Waste Management Act, TCA 68-46-101 et seq.

B. MONITORING PROCEDURES

1. Representative Sampling

Samples and measurements taken in compliance with the monitoring requirements specified herein shall be representative of the volume and nature of the monitored discharge, and shall be taken after treatment and prior to mixing with uncontaminated storm water runoff or the receiving stream.

2. Sampling Frequency

If there is a discharge from a permitted outfall on any given day during the monitoring period, the permittee must sample and report the results of analyses accordingly, and the permittee should not mark the 'No Discharge' box on the Discharge Monitoring Report form.

3. Test Procedures

a. Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304 (h) of the Clean Water Act (the "Act"), as amended, under which such procedures may be required.

b. Unless otherwise noted in the permit, all pollutant parameters shall be determined according to methods prescribed in Title 40, CFR Part 136, as amended, promulgated pursuant to Section 304 (h) of the Act.

4. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The exact place, date and time of sampling;

b. The exact person(s) collecting samples;

c. The dates and times the analyses were performed;

d. The person(s) or laboratory who performed the analyses;

e. The analytical techniques or methods used, and;

f. The results of all required analyses.

5. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation shall be retained for a minimum of three (3) years, or longer, if requested by the Division of Water Resources.

C. DEFINITIONS

The ***Daily Maximum Concentration*** is a limitation on the average concentration, in milligrams per liter (mg/L), of the discharge during any calendar day. When a proportional-to-flow composite sampling device is used, the daily concentration is the concentration of that 24-hour composite; when other sampling means are used, the daily concentration is the arithmetic mean of the concentrations of equal volume samples collected during any calendar day or sampling period.

The ***Monthly Average Concentration***, a limitation on the discharge concentration, in milligrams per liter (mg/L), is the arithmetic mean of all daily concentrations determined in a one calendar month period. For the purpose of this definition, a frequency of 2/Month is representative of 2 separate daily samples, each sample having been collected on a separate day during the monitoring period.

The ***Monthly Average Amount***, a discharge limitation measured in pounds per day (lb/day), is the total amount of any pollutant in the discharge by weight during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by a permit, the monthly average amount shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar month when the measurements were made. For the purpose of this definition, a frequency of 2/Month is representative of 2 separate daily samples, each sample having been collected on a separate day during the monitoring period.

The ***Daily Maximum Amount***, is a limitation measured in pounds per day (lb/day), on the total amount of any pollutant in the discharge by weight during any calendar day.

The ***Instantaneous Concentration*** is a limitation on the concentration, in milligrams per liter (mg/L), of any pollutant contained in the discharge determined from a grab sample taken at any point in time.

A ***Grab Sample***, for the purposes dry weather discharges authorized by this permit, is defined as a single effluent sample of at least 100 milliliters (sample volumes <100 milliliters are allowed when specified per standard methods, latest edition) collected at a randomly selected time over a period not exceeding 15 minutes. The sample(s) shall be collected at the period(s) most representative of the total discharge.

A ***Stormwater Grab Sample***, for the purposes wet weather discharges authorized by this permit, defined as a single effluent sample of at least 100 milliliters collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed one hour) of when the runoff or snowmelt begins discharging. Every effort should be made to collect a “first flush” sample representative of the daily maximum values for sampled parameters. “First flush” sample would be the most accurate representation of the maximum daily value for various pollutants in the storm water runoff.

For the purpose of this permit, a ***Calendar Day*** is defined as any 24-hour period.

Dry Weather Flow shall be construed to represent discharges consisting of process and/or non-process wastewater only.

Wet Weather Flow shall be construed to represent storm water runoff which, in combination with all process and/or non-process wastewater discharges, as applicable, is discharged during a qualifying storm event.

A **Qualifying Storm Event** is one which is greater than 0.1 inches and that occurs after a period of at least 72 hours after any previous storm event with rainfall of 0.1 inches or greater.

D. REPORTING

1. Monitoring Results

Monitoring results shall be recorded monthly and submitted monthly using Discharge Monitoring Report (DMR) forms supplied by the Division of Water Resources. Submittals shall be postmarked no later than 15 days after the completion of the reporting period. The top two copies of each report are to be submitted. A copy should be retained for the permittee's files. DMRs and any communication regarding compliance with the conditions of this permit must be sent to:

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
COMPLIANCE & ENFORCEMENT SECTION
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

The first DMR is due on the fifteenth of the month following permit effectiveness.

DMRs and any other information or report must be signed and certified by a responsible corporate officer as defined in 40 CFR 122.22, a general partner or proprietor, or a principal municipal executive officer or ranking elected official, or his duly authorized representative. Such authorization must be submitted in writing and must explain the duties and responsibilities of the authorized representative.

The electronic submission of DMRs will be accepted only if approved in writing by the division. For purposes of determining compliance with this permit, data submitted in electronic format is legally equivalent to data submitted on signed and certified DMR forms.

2. Additional Monitoring by Permittee

If the permittee monitors any pollutant specifically limited by this permit more frequently than required at the location(s) designated, using approved analytical methods as specified herein, the results of such monitoring shall be included in the calculation and reporting of the values required in the DMR form. Such increased frequency shall also be indicated on the form.

3. Falsifying Results and/or Reports

Knowingly making any false statement on any report required by this permit or falsifying any result may result in the imposition of criminal penalties as provided for in Section 309 of the

Federal Water Pollution Control Act, as amended, and in Section 69-3-115 of the Tennessee Water Quality Control Act.

4. Outlier Data

Outlier data include analytical results that are probably false. The validity of results is based on operational knowledge and a properly implemented quality assurance program. False results may include laboratory artifacts, potential sample tampering, broken or suspect sample containers, sample contamination or similar demonstrated quality control flaw.

Outlier data are identified through a properly implemented quality assurance program, and according to ASTM standards (e.g. Grubbs Test, 'h' and 'k' statistics). Furthermore, outliers should be verified, corrected, or removed, based on further inquiries into the matter. If an outlier was verified (through repeated testing and/or analysis), it should remain in the preliminary data set. If an outlier resulted from a transcription or similar clerical error, it should be corrected and subsequently reported.

Therefore, only if an outlier was associated with problems in the collection or analysis of the samples and as such does not conform with the Guidelines Establishing Test Procedures for the Analysis of Pollutants (40 CFR §136), it can be removed from the data set and not reported on the Discharge Monitoring Report forms (DMRs). Otherwise, all results (including monitoring of pollutants more frequently than required at the location(s) designated, using approved analytical methods as specified in the permit) should be included in the calculation and reporting of the values required in the DMR form. You are encouraged to use "comment" section of the DMR form (or attach additional pages), in order to explain any potential outliers or dubious results.

E. SCHEDULE OF COMPLIANCE

Full compliance and operational levels shall be attained from the effective date of this permit.

PART II

A. GENERAL PROVISIONS

1. Duty to Reapply

Permittee is not authorized to discharge after the expiration date of this permit. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information and forms as are required to the Director of Water Resources (the "Director") no later than 180 days prior to the expiration date. Such applications must be properly signed and certified.

2. Right of Entry

The permittee shall allow the Director, the Regional Administrator of the U.S. Environmental Protection Agency, or their authorized representatives, upon the presentation of credentials:

a. To enter upon the permittee's premises where an effluent source is located or where records are required to be kept under the terms and conditions of this permit, and at reasonable times to copy these records;

b. To inspect at reasonable times any monitoring equipment or method or any collection, treatment, pollution management, or discharge facilities required under this permit; and

c. To sample at reasonable times any discharge of pollutants.

3. Availability of Reports

Except for data determined to be confidential under Section 308 of the Federal Water Pollution Control Act, as amended, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Division of Water Resources. As required by the Federal Act, effluent data shall not be considered confidential.

4. Proper Operation and Maintenance

a. The permittee shall at all times properly operate and maintain all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory and process controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems, which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit. Backup continuous pH and flow monitoring equipment are not required.

b. Dilution water shall not be added to comply with effluent requirements to achieve BCT, BPT, BAT and or other technology-based effluent limitations such as those in State of Tennessee Rule 1200-4-5-.09.

5. Treatment Facility Failure

The permittee, in order to maintain compliance with this permit, shall control production, all discharges, or both, upon reduction, loss, or failure of the treatment facility, until the facility is restored or an alternative method of treatment is provided. This requirement applies in such situations as the reduction, loss, or failure of the primary source of power.

6. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private

property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

7. Severability

The provisions of this permit are severable. If any provision of this permit due to any circumstance, is held invalid, then the application of such provision to other circumstances and to the remainder of this permit shall not be affected thereby.

8. Other Information

If the permittee becomes aware that he failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, then he shall promptly submit such facts or information.

B. CHANGES AFFECTING THE PERMIT

1. Planned Changes

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1).

2. Permit Modification, Revocation, or Termination

a. This permit may be modified, revoked and reissued, or terminated for cause as described in 40 CFR 122.62 and 122.64, Federal Register, Volume 49, No. 188 (Wednesday, September 26, 1984), as amended.

b. The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

c. If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established for any toxic pollutant under Section 307(a) of the Federal Water Pollution Control Act, as amended, the Director shall modify or revoke and reissue the permit to conform to the prohibition or to the effluent standard, providing that the effluent standard is more stringent than the limitation in the permit on the toxic pollutant. The permittee shall comply with these effluent standards or prohibitions within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified or revoked and reissued to incorporate the requirement.

d. The filing of a request by the permittee for a modification, revocation, reissuance, termination, or notification of planned changes or anticipated noncompliance does not halt any permit condition.

3. Change of Ownership

This permit may be transferred to another party (provided there are neither modifications to the facility or its operations, nor any other changes which might affect the permit limits and conditions contained in the permit) by the permittee if:

a. The permittee notifies the Director of the proposed transfer at least 30 days in advance of the proposed transfer date;

b. The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage, and liability between them; and

c. The Director, within 30 days, does not notify the current permittee and the new permittee of his intent to modify, revoke or reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

Pursuant to the requirements of 40 CFR 122.61, concerning transfer of ownership, the permittee must provide the following information to the division in their formal notice of intent to transfer ownership: 1) the NPDES permit number of the subject permit; 2) the effective date of the proposed transfer; 3) the name and address of the transferor; 4) the name and address of the transferee; 5) the names of the responsible parties for both the transferor and transferee; 6) a statement that the transferee assumes responsibility for the subject NPDES permit; 7) a statement that the transferor relinquishes responsibility for the subject NPDES permit; 8) the signatures of the responsible parties for both the transferor and transferee pursuant to the requirements of 40 CFR 122.22(a), “Signatories to permit applications”; and, 9) a statement regarding any proposed modifications to the facility, its operations, or any other changes which might affect the permit limits and conditions contained in the permit.

4. Change of Mailing Address

The permittee shall promptly provide to the Director written notice of any change of mailing address. In the absence of such notice the original address of the permittee will be assumed to be correct.

C. NONCOMPLIANCE

1. Effect of Noncompliance

All discharges shall be consistent with the terms and conditions of this permit. Any permit noncompliance constitutes a violation of applicable State and Federal laws and is grounds for enforcement action, permit termination, permit modification, or denial of permit reissuance.

2. Reporting of Noncompliance

a. 24-Hour Reporting

In the case of any noncompliance which could cause a threat to public drinking supplies, or any other discharge which could constitute a threat to human health or the environment, the required notice of non-compliance shall be provided to the Division of Water Resources in the appropriate regional Field Office within 24-hours from the time the permittee becomes aware of the circumstances. (The regional Field Office should be contacted for names and phone numbers of environmental response personnel).

A written submission must be provided within five calendar days of the time the permittee becomes aware of the circumstances, unless this requirement is waived by the Director on a case-by-case basis. The permittee shall provide the Director with the following information:

i. A description of the discharge and cause of noncompliance;

ii. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and

iii. The steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

b. Scheduled Reporting

For instances of noncompliance which are not reported under subparagraph 2.a. above, the permittee shall report the noncompliance on the Discharge Monitoring Report. The report shall contain all information concerning the steps taken, or planned, to reduce, eliminate, and prevent recurrence of the violation and the anticipated time the violation is expected to continue.

3. Sanitary Sewer Overflow

a. "***Sanitary Sewer Overflow***" means the discharge to land or water of wastes from any portion of the collection, transmission, or treatment system other than through permitted outfalls.

b. Sanitary Sewer Overflows are prohibited.

c. The permittee shall operate the collection system so as to avoid sanitary sewer overflows. No new or additional flows shall be added upstream of any point in the collection system, which experiences chronic sanitary sewer overflows (greater than 5 events per year) or would otherwise overload any portion of the system.

d. Unless there is specific enforcement action to the contrary, the permittee is relieved of this requirement after: 1) an authorized representative of the Commissioner of the Department of Environment and Conservation has approved an engineering report and construction plans and specifications prepared in accordance with accepted engineering practices for correction of the problem; 2) the correction work is underway; and 3) the cumulative, peak-design, flows potentially added from new connections and line extensions upstream of

any chronic overflow point are less than or proportional to the amount of inflow and infiltration removal documented upstream of that point. The inflow and infiltration reduction must be measured by the permittee using practices that are customary in the environmental engineering field and reported in an attachment to a Monthly Operating Report submitted to the regional TDEC Field Office. The data measurement period shall be sufficient to account for seasonal rainfall patterns and seasonal groundwater table elevations.

e. In the event that more than five (5) sanitary sewer overflows have occurred from a single point in the collection system for reasons that may not warrant the self-imposed moratorium or completion of the actions identified in this paragraph, the permittee may request a meeting with the Division of Water Resources field office staff to petition for a waiver based on mitigating evidence.

4. Upset

a. "***Upset***" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

i. An upset occurred and that the permittee can identify the cause(s) of the upset;

ii. The permitted facility was at the time being operated in a prudent and workman-like manner and in compliance with proper operation and maintenance procedures;

iii. The permittee submitted information required under "Reporting of Noncompliance" within 24-hours of becoming aware of the upset (if this information is provided orally, a written submission must be provided within five days); and

iv. The permittee complied with any remedial measures required under "Adverse Impact."

5. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

6. Bypass

a. "***Bypass***" is the intentional diversion of wastewater away from any portion of a treatment facility. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypasses are prohibited unless the following 3 conditions are met:

i. The bypass is unavoidable to prevent loss of life, personal injury, or severe property damage;

ii. There are not feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment down-time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass, which occurred during normal periods of equipment down-time or preventative maintenance;

iii. The permittee submits notice of an unanticipated bypass to the Division of Water Resources in the appropriate environmental assistance center within 24-hours of becoming aware of the bypass (if this information is provided orally, a written submission must be provided within five days). When the need for the bypass is foreseeable, prior notification shall be submitted to the Director, if possible, at least 10 days before the date of the bypass.

c. Bypasses not exceeding limitations are allowed **only** if the bypass is necessary for essential maintenance to assure efficient operation. All other bypasses are prohibited. Allowable bypasses not exceeding limitations are not subject to the reporting requirements of 6.b.iii, above.

7. Washout

a. For domestic wastewater plants only, a "washout" shall be defined as loss of Mixed Liquor Suspended Solids (MLSS) of 30.00% or more. This refers to the MLSS in the aeration basin(s) only. This does not include MLSS decrease due to solids wasting to the sludge disposal system. A washout can be caused by improper operation or from peak flows due to infiltration and inflow.

b. A washout is prohibited. If a washout occurs the permittee must report the incident to the Division of Water Resources in the appropriate regional Field Office within 24-hours by telephone. A written submission must be provided within 5 days. The washout must be noted on the discharge monitoring report. Each day of a washout is a separate violation.

D. LIABILITIES

1. Civil and Criminal Liability

Except as provided in permit conditions for "**Bypassing,**" "**Overflow,**" and "**Upset,**" nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Notwithstanding this permit, the permittee shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge of wastewater to any surface or subsurface waters. Additionally, notwithstanding this Permit, it shall be the responsibility of the permittee to conduct its wastewater treatment and/or discharge activities in a manner such that public or private nuisances or health hazards will not be created.

2. Liability Under State Law

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or the Federal Water Pollution Control Act, as amended.

PART III

OTHER REQUIREMENTS

A. TOXIC POLLUTANTS

The permittee shall notify the Division of Water Resources as soon as it knows or has reason to believe:

1. That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic substance(s) (listed at 40 CFR 122, Appendix D, Table II and III) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

a. One hundred micrograms per liter (100 ug/l);

b. Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;

c. Five (5) times the maximum concentration value reported for that pollutant(s) in the permit application in accordance with 122.21(g)(7); or

d. The level established by the Director in accordance with 122.44(f).

2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

a. Five hundred micrograms per liter (500 ug/l);

b. One milligram per liter (1 mg/L) for antimony;

c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 122.21(g)(7); or

d. The level established by the Director in accordance with 122.44(f).

B. REOPENER CLAUSE

If an applicable standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(B)(2), and 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked and reissued to conform to that effluent standard or limitation.

C. PLACEMENT OF SIGNS

As of the effective date of this permit, the permittee shall place and maintain a sign(s) at each outfall and any bypass/overflow point in the collection system. For the purposes of this requirement, any bypass/overflow point that has discharged five (5) or more times in the last year must be so posted. The sign(s) should be clearly visible to the public from the bank and the receiving stream or from the nearest public property/right-of-way, if applicable. The minimum sign size should be two feet by two feet (2' x 2') with one inch (1") letters. The sign should be made of durable material and have a white background with black letters.

The sign(s) are to provide notice to the public as to the nature of the discharge and, in the case of the permitted outfalls, that the discharge is regulated by the Tennessee Department of Environment and Conservation, Division of Water Resources. The following is given as an example of the minimal amount of information that must be included on the sign:

TREATED INDUSTRIAL WASTEWATER
Heritage Glass, LLC
(Permittee's Phone Number)
NPDES Permit NO. TN0081582
TENNESSEE DIVISION OF WATER RESOURCES
1-888-891-8332 ENVIRONMENTAL FIELD OFFICE - Johnson City

INDUSTRIAL STORM WATER RUNOFF
Heritage Glass, LLC
(Permittee's Phone Number)
NPDES Permit NO. TN0081582
TENNESSEE DIVISION OF WATER RESOURCES
1-888-891-8332 ENVIRONMENTAL FIELD OFFICE - Johnson City

D. ANTIDEGRADATION

Pursuant to the Rules of the Tennessee Department of Environment and Conservation, Chapter 1200-4-3-.06, titled “Tennessee Antidegradation Statement,” and in consideration of the Department’s directive in attaining the greatest degree of effluent reduction achievable in municipal, industrial, and other wastes, the permittee shall further be required, pursuant to the terms and conditions of this permit, to comply with the effluent limitations and schedules of compliance required to implement applicable water quality standards, to comply with a State Water Quality Plan or other State or Federal laws or regulations, or where practicable, to comply with a standard permitting no discharge of pollutants.

PART IV

STORM WATER POLLUTION PREVENTION PLAN

The discharger will develop, document and maintain a storm water pollution prevention plan (SWPPP) pursuant to the requirements as set forth in the Tennessee Multi-Sector General Permit for Industrial Activities, Sector E, “Storm Water Discharges Associated With Industrial Activity from Glass, Clay, Cement, Concrete, and Gypsum Product Manufacturing Facilities", Part 3. The plan shall be signed by either a principal executive officer of a corporation, the owner or proprietor of a sole proprietorship, or a partner or general partner of a partnership. The SWPPP developed and implemented shall contain, in addition to the requirements listed in the Tennessee Multi-Sector SWPPP guidelines for Sector E, "Storm Water Discharges Associated With Industrial Activity from Glass, Clay, Cement, Concrete, and Gypsum Product Manufacturing Facilities", Part 3, the following items:

A. PLAN IMPLEMENTATION

The plan should be developed and available for review as of the effective date of this permit. Facilities should implement the management practices as soon as possible, but not later than one year after permit coverage. Where new construction is necessary to implement the management plan, a construction schedule should be included. Construction should be completed as soon as possible.

B. PLAN AVAILABILITY

The plan will be maintained by the discharger on the site or at a nearby office. Copies of the plan will be submitted to the Division of Water Resources within ten working days of any request.

C. PLAN MODIFICATION

The plan will be modified as required by the Director of the Division of Water Resources.

D. MONITORING PLAN

The storm water discharges will be monitored as required in Part I. Section A., Effluent Limits and Monitoring Requirements, applicable to storm water outfalls. For each outfall monitored, the surface area and type of cover, for example, roof, pavement, grassy areas, gravel, will be identified.

STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

Contents of Plan. The plan shall include, at a minimum, the following items:

Pollution Prevention Team. Each plan shall identify a specific individual or individuals within the facility organization as members of a storm water Pollution Prevention Team that are responsible for developing the storm water pollution prevention plan and assisting the facility or plant manager in its implementation, maintenance, and revision. The plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the facility's storm water pollution prevention plan.

Description of Potential Pollutant Sources. Each plan shall provide a description of potential sources that may reasonably be expected to add significant amounts of pollutants to storm water discharges or that may result in the discharge of pollutants during dry weather from separate storm sewers draining the facility. Each plan shall identify all activities and significant materials that may potentially be significant pollutant sources. Each plan shall include, at a minimum:

Drainage

A site map indicating an outline of the portions of the drainage area of each storm water outfall that are within the facility boundaries, each existing structural control measure to reduce pollutants in storm water runoff, surface water bodies, locations where significant materials are exposed to precipitation, locations where major spills or leaks identified under Part 3.a.(2)(c) (Spills and Leaks) of this permit have occurred, and the locations of the following activities where such activities are exposed to precipitation: fueling stations, vehicle and equipment maintenance and/or cleaning areas, loading/unloading areas, locations used for the treatment, storage or disposal of wastes, liquid storage tanks, processing areas and storage areas. Facilities shall also identify, on the site map, the location of any: bag house or other dust control device; recycle/sedimentation pond, clarifier or other device used for the treatment of process wastewater and the areas that drain to the treatment device. The map must indicate the outfall locations and the types of discharges contained in the drainage areas of the outfalls.

For each area of the facility that generates storm water discharges associated with industrial activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow, and an identification of the types of pollutants that are likely to be present in storm water discharges associated with industrial activity. Factors to consider include the toxicity of chemical; quantity of chemicals used, produced or discharged; the likelihood of contact with storm water; and history of significant leaks or spills of toxic or hazardous pollutants. Flows with a significant potential for causing erosion shall be identified.

Inventory of Exposed Materials—An inventory of the types of materials handled at the site that potentially may be exposed to precipitation. Such inventory shall include a narrative description of significant materials that have been handled, treated, stored or disposed in a manner to allow exposure to storm water between the time of 3 years prior to the effective date of this permit; method and location of onsite storage or disposal; materials management practices employed to minimize contact of materials with storm water runoff between the time of

3 years prior to the effective date of this permit; the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of any treatment the storm water receives.

Spills and Leaks—A list of significant spills and significant leaks of toxic or hazardous pollutants that occurred at areas that are exposed to precipitation or that otherwise drain to a storm water conveyance at the facility after the date of 3 years prior to the date of the submission of a Notice of Intent (NOI) to be covered under this permit. Such list shall be updated as appropriate during the term of the permit.

Sampling Data—A summary of existing discharge sampling data describing pollutants in storm water discharges from the facility, including a summary of sampling data collected during the term of this permit.

Risk Identification and Summary of Potential Pollutant Sources—A narrative description of the potential pollutant sources from the following activities: loading and unloading operations; outdoor storage activities; outdoor manufacturing or processing activities; significant dust or particulate generating processes; and onsite waste disposal practices. The description shall specifically list any significant potential source of pollutants at the site and for each potential source, any pollutant or pollutant parameter [e.g., Total Suspended Solids (TSS), etc.] of concern shall be identified.

Measures and Controls. Each facility covered by this permit shall develop a description of storm water management controls appropriate for the facility, and implement such controls. The appropriateness and priorities of controls in a plan shall reflect identified potential sources of pollutants at the facility. The description of storm water management controls shall address the following minimum components, including a schedule for implementing such controls:

Good Housekeeping—Good housekeeping requires the maintenance of areas that may contribute pollutants to storm water discharges in a clean, orderly manner.

Facilities shall prevent or minimize the discharge of spilled cement, aggregate (including sand or gravel), kiln dust, fly ash, settled dust other significant materials in storm water from paved portions of the site that are exposed to storm water. Measures used to minimize the presence of these materials may include regular sweeping, or other equivalent measures. The plan shall indicate the frequency of sweeping or other measures. The frequency shall be determined based upon consideration of the amount of industrial activity occurring in the area and frequency of precipitation, but shall not be less than once per week when cement, aggregate, kiln dust or fly ash are being handled or otherwise processed in the area.

Facilities shall prevent the exposure of fine granular solids such as cement, fly ash, and kiln dust to storm water. Where practicable, these materials shall be stored in enclosed silos, hoppers or buildings, in covered areas, or under covering.

Preventive Maintenance—A preventive maintenance program shall involve routine inspection and maintenance of storm water management devices (e.g., cleaning oil/water separators, catch basins) as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters, and ensuring appropriate maintenance of such equipment and systems.

Spill Prevention and Response Procedures—Areas where potential spills that can contribute pollutants to storm water discharges can occur, and their accompanying drainage points shall be identified clearly in the storm water pollution prevention plan. Where appropriate, specifying material handling procedures, storage requirements, and use of equipment such as diversion valves in the plan should be considered. Procedures for cleaning up spills shall be identified in the plan and made available to the appropriate personnel. The necessary equipment to implement a clean up should be available to personnel.

Inspections—Qualified facility personnel shall be identified to inspect designated equipment and areas of the facility specified in the plan. The inspection frequency shall be specified in the plan based upon a consideration of the level of industrial activity at the facility, but shall be a minimum of once per month while the facility is in operation. The inspection shall take place while the facility is in operation and shall at a minimum include all of the following areas that are exposed to storm water at the site: material handling areas, above ground storage tanks, hoppers or silos, dust collection/containment systems, truck wash down and equipment cleaning areas. Tracking or follow-up procedures shall be used to ensure that appropriate actions are taken in response to the inspections. Records of inspections shall be maintained.

Employee Training—Employee training programs shall inform personnel responsible for implementing activities identified in the storm water pollution prevention plan or otherwise responsible for storm water management at all levels of responsibility of the components and goals of the storm water pollution prevention plan. Training should address topics such as spill response, good housekeeping, truck wash out procedures, equipment wash down procedures and material management practices. The pollution prevention plan shall identify periodic dates for such training.

Recordkeeping and Internal Reporting Procedures—A description of incidents (such as spills, or other discharges), along with other information describing the quality and quantity of storm water discharges shall be included in the plan required under this part. Inspections and maintenance activities shall be documented and records of such activities shall be incorporated into the plan.

Non-storm Water Discharges

The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharges. The certification shall include the identification of potential significant sources of non-storm water at the site, a description of the results of any test and/or evaluation for the presence of non-storm water discharges, the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the onsite drainage points that were directly observed during the test. Certifications shall be signed in accordance with Part I.D.1. of this permit. Such certification may not be feasible if the facility operating the storm water discharge associated with industrial activity does not have access to an outfall, manhole, or other point of access to the ultimate conduit that receives the discharge. In such cases, the source identification section of the storm water pollution prevention plan shall indicate why the certification required by this part was not feasible, along with the identification of potential significant sources of non-storm water at the site. A discharger that is unable to

provide the certification required by this paragraph must notify the Division of Water Resources in accordance with paragraph 3.a.(3)(g)(iii) (below).

Facilities engaged in production of concrete block, brick or other products shall include in the certification a description of measures that insure that process waste water that results from washing of trucks, mixers, transport buckets, forms or other equipment are discharged in accordance with NPDES requirements or are recycled. Facilities with wash water recycle ponds shall include an estimate of the amount of rainfall (in inches) required to cause the recycle pond to overflow in a 24-hour period.

Sources of non-storm water that are combined with storm water discharges associated with industrial activity must be identified in the plan. The plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge. Any non-storm water discharges that are not permitted under an individual NPDES permit should be brought to the attention of the Division's local Field Office.

Failure to Certify—Any facility that is unable to provide the certification required (testing for non-storm water discharges), must notify the Division of Water Resources by November 30, 1997 or, for facilities that begin to discharge storm water associated with industrial activity after November 30, 1997, 180 days after submitting an NOI to be covered by this permit. If the failure to certify is caused by the inability to perform adequate tests or evaluations, such notification shall describe: the procedure of any test conducted for the presence of non-storm water discharges; the results of such test or other relevant observations; potential sources of non-storm water discharges to the storm sewer; and why adequate tests for such storm sewers were not feasible. Non-storm water discharges to waters of the State that are not authorized by an NPDES permit are unlawful, and must be terminated.

Sediment and Erosion Control—The plan shall identify areas that, due to topography, activities, or other factors, have a high potential for significant soil erosion, and identify structural, vegetative, and/or stabilization measures to be used to limit erosion.

Management of Runoff—The plan shall contain a narrative consideration of the appropriateness of traditional storm water management practices (practices other than those that control the generation or source(s) of pollutants) used to divert, infiltrate, reuse, or otherwise manage storm water runoff in a manner that reduces pollutants in storm water discharges from the site. The plan shall provide that measures that the permittee determines to be reasonable and appropriate shall be implemented and maintained. The potential of various sources at the facility to contribute pollutants to storm water discharges associated with industrial activity [see paragraph 3.a.(2) of this section (Description of Potential Pollutant Sources)] shall be considered when determining reasonable and appropriate measures. Appropriate measures may include: vegetative swales and practices, reuse of collected storm water (such as for a process or as an irrigation source), inlet controls (such as oil/water separators), snow management activities, infiltration devices, and wet detention/retention devices or other equivalent measures.

Comprehensive Site Compliance Evaluation. Qualified personnel shall conduct site compliance evaluations at appropriate intervals specified in the plan, but, in no case less than once a year. Such evaluations shall provide:

Areas contributing to a storm water discharge associated with industrial activity including but not limited to: material handling areas, above ground storage tanks, hoppers or silos, dust collection/containment systems, truck wash down and equipment cleaning areas shall be visually inspected for evidence of, or the potential for, pollutants entering the drainage system. Measures to reduce pollutant loadings shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed. Structural storm water management measures, sediment and erosion control measures, and other structural pollution prevention measures such as recycle ponds, identified in the plan shall be observed to ensure that they are operating correctly. A visual inspection of equipment needed to implement the plan, such as spill response equipment, shall be made.

Based on the results of the evaluation, the description of potential pollutant sources identified in the plan in accordance with paragraph 3.a.(2) of this section (Description of Potential Pollutant Sources) and pollution prevention measures and controls identified in the plan in accordance with paragraph 3.a.(3) of this section (Measures and Controls) shall be revised as appropriate within 2 weeks of such evaluation and shall provide for implementation of any changes to the plan in a timely manner, but in no case more than 12 weeks after the evaluation.

A report summarizing the scope of the evaluation, personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the storm water pollution prevention plan, and actions taken in accordance with paragraph 3.a.(4)(b) (above) of the permit shall be made and retained as part of the storm water pollution prevention plan for at least 3 years after the date of the evaluation. The report shall identify any incidents of noncompliance. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the storm water pollution prevention plan and this permit. The report shall be signed in accordance with Part I.D.1. (Signatory Requirements) of this permit.

Where compliance evaluation schedules overlap with inspections required under 3.a.(3)(d), the compliance evaluation may be conducted in place of one such inspection.

RATIONALE

Heritage Glass, LLC
NPDES PERMIT NO. TN0081582
Kingsport, Sullivan County, Tennessee

Permit Writer: Ms. Maybelle T. Sparks

I. DISCHARGER

Heritage Glass, LLC
1450 Lincoln Street
Kingsport, Sullivan County, Tennessee

Official Contact Person:
Mr. Chris Cording
President
(423) 967-0415

Nature of Business:
Flat glass

SIC Code(s): 3211
Industrial Classification: Secondary
Discharger Rating: Minor

II. PERMIT STATUS

Formerly AGC Flat Glass North America, Inc.- Kingsport Plant
Application for renewal received April 21, 2014

Watershed Scheduling

Environmental Field Office: Johnson City
Primary Longitude: -82.548333 Primary Latitude: 36.527333
Hydrocode: 6010102 Watershed Group: 3
Watershed Identification: Holston-South Fork (D/S Of Watauga)
Target Reissuance Year: 2018

III. FACILITY DISCHARGES AND RECEIVING WATERS

Heritage Glass, LLC discharges filter backwash, non-contact cooling water, storm water, glass washing wastewater and glass edger wastewater through Outfall 001 to the South Fork Holston River. Process wastewater discharged through Outfall 001 and monitored at the internal monitoring point, IMP 01A, is regulated by 40 CFR Part 426. The following tables summarize facility discharges and the receiving stream information for Outfall 001 and IMP 01A.

FACILITY DISCHARGES AND RECEIVING WATERS

OUTFALL 001	
LONGITUDE	LATITUDE
82-32-54	36-31-38.4

FLOW (MGD)	DISCHARGE SOURCE
0.868	Non-contact cooling water
	Roof drains, man holes, wet weather spr
0.868	TOTAL DISCHARGE

RECEIVING STREAM DISCHARGE ROUTE				
South Fork Holston River				
STREAM LOW FLOW (CFS) * (MGD)		7Q10	1Q10	30Q2
		550.0	396.0	1190.0
		355.4	255.9	769.1
STREAM USE CLASSIFICATIONS (WATER QUALITY)				
FISH	RECREATION	IRRIGATION	LW&W	DOMESTIC
X	X	X	X	X
INDUSTRIAL	NAVIGATION			
X				

Treatment: No active treatment

Reference: Flow Duration and Low Flows of Tennessee Streams through 1992 by George S. Law and Jess D. Weaver. Water Resources Investigations Report 95-4293 prepared by the U.S. Geological Survey in Cooperation with the Tennessee Department of Environment and Conservation and the Tennessee Valley Authority. Nashville, Tennessee, 1996, p. 41.

FACILITY DISCHARGES AND RECEIVING WATERS

OUTFALL 01A	
LONGITUDE	LATITUDE
82-32-50.4	36-31-43.2

FLOW (MGD)	DISCHARGE SOURCE
0.044	Glass washing machines
0.001	Glass edging equipment
0.050	Sand filter backwash
0.001	Centrifuges
0.096	TOTAL DISCHARGE

RECEIVING STREAM DISCHARGE ROUTE				
South Fork Holston River via 001				
STREAM LOW FLOW (CFS) * (MGD)		7Q10	1Q10	30Q2
		550.0	396.0	1190.0
		355.4	255.9	769.1
STREAM USE CLASSIFICATIONS (WATER QUALITY)				
FISH	RECREATION	IRRIGATION	LW&W	DOMESTIC
X	X	X	X	X
INDUSTRIAL	NAVIGATION			
X				

TREATMENT:
Fluid Pro Separator: Chain Paddle Solids Removal
Settling basin: Concrete settling basin
Small and large settling pond: Settling
Centrifuges: 10,000 gallon recycled to glass edgers

Reference: Flow Duration and Low Flows of Tennessee Streams through 1992 by George S. Law and Jess D. Weaver. Water Resources Investigations Report 95-4293 prepared by the U.S. Geological Survey in Cooperation with the Tennessee Department of Environment and Conservation and the Tennessee Valley Authority. Nashville, Tennessee, 1996, p. 41.

Process wastewater and storm water runoff discharged through Outfall 001 cannot be effectively segregated. Thus, the facility's storm water discharges associated with industrial activity is covered under the individual NPDES permit.

IV. APPLICABLE EFFLUENT LIMITATIONS GUIDELINES

The Standard Industrial Classification (SIC) code for Heritage Glass, LLC is 3211. Process wastewater discharged through Outfall 001 (monitored at IMP 01A) is regulated by 40 CFR 426, Subpart C (Rolled Glass Manufacturing Subcategory). The best practicable control technology (BPT) and best available technology (BAT) effluent limitations guidelines require that there shall be no discharge of process wastewater pollutants to navigable waters. Requirements for 40 CFR 426, Subpart F (Automotive Glass Tempering Subcategory) are summarized below:

BPT GUIDELINES 40 CFR 426.62 and best conventional pollutant control technology (BCT) GUIDELINES 40 CFR 426.67

	Effluent limitations (lb/ 1060 sq ft of product)	
Effluent characteristic	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
TSS	0.40	0.25
O&G	0.13	0.13
pH	Within the range 6.0 to 9.0 standard units	

Based an average production of 303,000 sq ft/day of tempered glass, the allowable loading for Outfall 001 is as follows:

TSS (daily max)= (0.40 lb/ 1060 sq ft of product) x (303,000 sq ft of product/day)= 114.3 lb/day

TSS (monthly avg)= (0.25 lb/ 1060 sq ft of product) x (303,000 sq ft of product/day)= 71.5 lb/day

O&G (daily max)= (0.13 lb/ 1060 sq ft of product) x (303,000 sq ft of product/day)= 37.2 lb/day

O&G (monthly avg)= (0.13 lb/ 1060 sq ft of product) x (303,000 sq ft of product/day)= 37.2 lb/day

V. NEW PERMIT LIMITS AND MONITORING REQUIREMENTS

The proposed permit limits are determined by using Best Professional Judgment (BPJ) through a comparison of any applicable EPA effluent guidelines or from State of Tennessee maximum effluent limits for effluent limited segments per Rule 1200-4-5-.03(2); or by way of operational and/or treatability data. The following tables list proposed effluent limitations and monitoring requirements to be included in the permit.

PERMIT LIMITS

Internal Monitoring Point - IMP 01A
STORMWATER, FILTER BACKWASH, GLASS WASHING AND GLASS EDGER WASTEWATERS

	EFFLUENT LIMITATIONS				MONITORING REQUIREMENTS	
	MONTHLY		DAILY			
EFFLUENT CHARACTERISTIC	AVG. CONC. (mg/l)	AVG. AMNT. (lb/day)	MAX. CONC. (mg/l)	MAX. AMNT. (lb/day)	MSRMNT. FRQNCY.	SAMPLE TYPE
FLOW *			Report (MGD)		2/Month	Instantaneous
TOTAL SUSPENDED SOLIDS (TSS)		71.5		114.3	2/Month	Grab
OIL & GREASE		37.2		37.2	2/Month	Grab
pH **	Range 6.0 - 9.0				1/Month	Grab
SOLIDS, SETTLEABLE	--	--	0.5 ml/l	--	1/Month	Grab

* Flow shall be reported in Million Gallons per Day (MGD).
** pH analysis shall be performed within fifteen (15) minutes of sample collection.

PERMIT LIMITS

OUTFALL 001
NON-CONTACT COOLING WATER AND OVERFLOWS FROM THE GLASS WASHING AND GLASS EDGER WASTEWATERS

	EFFLUENT LIMITATIONS				MONITORING REQUIREMENTS	
	MONTHLY		DAILY			
EFFLUENT CHARACTERISTIC	AVG. CONC. (mg/l)	AVG. AMNT. (lb/day)	MAX. CONC. (mg/l)	MAX. AMNT. (lb/day)	MSRMNT. FRQNCY.	SAMPLE TYPE
FLOW *			Report (MGD)		2/Month	Instantaneous
TOTAL SUSPENDED SOLIDS (TSS)	30.0		40.0		2/Month	Grab
OIL & GREASE	10.0		15.0		2/Month	Grab
pH **	Range 6.0 - 9.0				1/Month	Grab
TEMPERATURE	Report				1/Month	Grab
ALUMINUM	--	--	Report	--	1/Quarter	Grab
COPPER	--	--	Report	--	1/Quarter	Grab
CHLORINE, TOTAL RESIDUAL (TRC)	--	--	2.0	--	2/Month	Grab

* Flow shall be reported in Million Gallons per Day (MGD).
** pH and TRC analyses shall be performed within fifteen (15) minutes of sample collection.

PERMIT LIMITS

SW1
STORMWATER

EFFLUENT	EFFLUENT LIMITATIONS				MONITORING REQUIREMENTS	
	MONTHLY		DAILY			
CHARACTERISTIC	AVG. CONC. (mg/l)	AVG. AMNT. (lb/day)	MAX. CONC. (mg/l)	MAX. AMNT. (lb/day)	MSRMNT. FRQNCY.	SAMPLE TYPE
FLOW *			Report (MGD)		2/year	Instantaneous
TOTAL SUSPENDED SOLIDS (TSS)	Report		Report		2/Year	Grab
OIL & GREASE	Report		Report		2/Year	Grab

* Flow shall be reported in Million Gallons per Day (MGD).
The division recognizes that stormwater cannot be effectively segregated from the non-contact cooling water and process wastewaters.

PERMIT LIMITS

SW2
STORMWATER

EFFLUENT	EFFLUENT LIMITATIONS				MONITORING REQUIREMENTS	
	MONTHLY		DAILY			
CHARACTERISTIC	AVG. CONC. (mg/l)	AVG. AMNT. (lb/day)	MAX. CONC. (mg/l)	MAX. AMNT. (lb/day)	MSRMNT. FRQNCY.	SAMPLE TYPE
FLOW *			Report (MGD)		2/year	Instantaneous
TOTAL SUSPENDED SOLIDS (TSS)	Report		Report		2/Year	Grab
OIL & GREASE	Report		Report		2/Year	Grab

* Flow shall be reported in Million Gallons per Day (MGD).
The division recognizes that stormwater cannot be effectively segregated from the filter backwash.

IMP 01A

Process wastewater discharged through Outfall 001 and monitored at the internal monitoring point, IMP 01A, is regulated by 40 CFR Part §426 (see Rationale, Part IV, Applicable Effluent Limitations Guidelines page 3).

Outfalls SW1 and SW2

This facility is one which has storm water runoff associated with industrial activity, as defined in 40 CFR 122.26 (b)(14). As stated before, process wastewater and storm water runoff discharged through facility Outfall 001 cannot be effectively segregated. In order to adequately characterize dry weather and wet weather discharges, two sets of effluent limitations is established in this permit. Effluent limitations for outfalls designated as SW1 and SW2 will represent wet weather discharges from the facility. It should be noted that Outfalls 001 and SW1 represent the same physical location. The definition of wet weather flow can be found in Part I., Section C of this permit.

There are no effluent guidelines for storm water discharges from the Heritage Glass, LLC facility. Thus, this permit will not establish effluent limitations, but will require reporting of effluent characteristics at Outfalls SW1 and SW2.

The Division intends that the permittee implement a Storm Water Pollution Prevention Plan (SWPPP) in order to minimize the discharge of these pollutants from storm water outfalls. It is the opinion of the Division that the best method for dealing with potential pollution associated with storm water discharges from the Heritage Glass, LLC facility is through implementation of an aggressive SWPPP, coupled with discharge monitoring to verify SWPPP effectiveness. Monitoring of storm water runoff from Outfalls SW1 and SW2 will be required for Flow, Total Suspended Solids (TSS), and Oil & Grease on a semi-annual basis.

The Division believes that a "first flush" sample would be the most accurate representation of the maximum daily value for various pollutants in the storm water runoff. Furthermore, storm water sampling requirements included in the TMSP require analysis of grab samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed one hour) of when the runoff or snowmelt begins discharging. Therefore, the sample type for all storm water runoff parameters will be grab. Every effort should be made to collect a "first flush" sample representative of the daily maximum values for sampled parameters.

This permit will contain a Storm Water Pollution Prevention Plan (SWPPP) developed to regulate storm water runoff. This SWPPP is meant to ensure that runoff from the facility site is not a significant source of pollution to the receiving stream. The discharger will develop, document and maintain the SWPPP pursuant to the requirements as set forth in the Tennessee's Storm Water Multi-Sector General Permit for Industrial Activities, Sector E, "Storm Water Discharges Associated With Industrial Activity from Glass, Clay, Cement, Concrete, and Gypsum Product Manufacturing Facilities", Part 3. The effectiveness of this SWPPP will be investigated after the results of the storm water runoff monitoring have been submitted. At that time, should the results so dictate, the Division maintains the authority to institute specific numeric limitations for the monitored parameters.

Flow

Monitoring of flow quantifies the load of pollutants to the stream. Flow shall be reported in Million Gallons per Day (MGD) and monitored at the time of sample collection.

Total Suspended Solids (TSS)

Total Suspended Solids is a general indicator of the quality of a wastewater and will be limited in this permit. TSS is limited at 40 mg/l as a daily maximum concentration and 30 mg/l as a monthly average concentration for Outfall 001. Additionally, TSS is limited at 114.3 lb/day (daily maximum) and 71.5 lb/day (monthly average) at IMP 01A in accordance with applicable effluent limitations guidelines.

The State of Tennessee Water Quality Standards for the protection of Fish & Aquatic Life [Chapter 1200-4-3-.03(3) (c)] state there shall be no distinctly visible solids, scum, foam, oily slick, or the formation of slimes, bottom deposits or sludge banks of such size or character that may be detrimental to fish and aquatic life in the receiving stream.

Oil and Grease

The Division has determined that an oil and grease limitation is needed for this facility because of the potential of contamination from spills, leaks and other industrial activities present at the site. Oil and grease is limited at 37.2 lb/day as a daily maximum and monthly average for IMP 01A in accordance with applicable effluent limitations guidelines. Additionally, for Outfall 001, oil and grease is limited at 15 mg/l as a daily maximum concentration and 10 mg/l as a monthly average concentration. These limits are based on BPJ in consideration of the level of treatment obtainable with a properly operated and maintained oil/water separator. There should be less reliance upon the oil/water separator as a solution and a greater reliance upon good management, operation and housekeeping practices to restrict pollution.

According to the State of Tennessee Water Quality Standards for the protection of Fish & Aquatic Life [Chapter 1200-4-3-.03(3) (c)], there shall be no distinctly visible solids, scum, foam, oily slick, or the formation of slimes, bottom deposits or sludge banks of such size or character that may be detrimental to fish and aquatic life in the receiving stream.

pH

According to the State of Tennessee Water Quality Standards [Chapter 1200-4-3-.03(3) (b)], the pH for the protection of Fish and Aquatic Life shall lie within the range of 6.5 to 9.0 and shall not fluctuate more than 1.0 unit in this range over a period of 24-hours. Since the South Fork Holston River will provide some buffering capacity, pH will be 6.0 to 9.0.

Aluminum

There are no applicable effluent limitation guidelines for aluminum for this facility. Instead of limiting aluminum at the internal monitoring point, the permit writer proposes to monitor total aluminum concentrations on report only basis at Outfall 001. Monitoring frequency will be 1/Quarter, and sample type will be grab.

Copper

There are no applicable effluent limitation guidelines for copper for this facility. However, information obtained from facility representatives indicates that cupric sulfate is used for algae control in an onsite settling ponds that discharge to IMP 01A and Outfall 001. The permit writer proposes to monitor total copper concentrations on report only basis at Outfall 001. Monitoring frequency will be 1/Quarter, and sample type will be grab.

Total Residual Chlorine

The October 1999 revision to the Tennessee Water Quality Criteria, 1200-4-3-.05(4), require that criteria for fish and aquatic life be applied on the basis of flows in excess of the minimum critical flow occurring once in ten years for regulated streams and flows equal to or exceeding the 7-day minimum, 10-year recurrence interval on unregulated streams.

The residual chlorine limit is derived using the mass balance formula and the EPA instream protection value of 0.019 mg/l for fish and aquatic life (1200-4-3-.03(3)). Applying this formula yields the following calculation:

$$\frac{0.019\ (Qd + Qs)}{Qd} = \text{Limit (mg/l)} = \frac{0.019\ (0.868 + 355)}{0.868} = 7.8 \text{ mg/l}$$

where:

0.019	=	instream protection value (acute)
0.868	=	Qd, average flow (MGD)
355	=	Qs, 7Q10 flow of receiving stream (MGD)

When water quality is not the limiting factor due to the large dilution afforded by the South Fork Holston River, an effluent concentration of 2.0 mg/l shall not be exceeded as an operational control of treatment facilities.

Settleable solids

Since process wastewater is discharged through Outfall 001 and monitored at the internal monitoring point, IMP 01A, the limit for settleable solids is retained in this permit.

Effluent Temperature

Temperature will be limited according to the State of Tennessee Water Quality Standards for the protection of Fish & Aquatic Life [Chapter 1200-4-3-.03(3)(e)]. It is recognized that the temperature of the cooling water discharge will be greater than the temperature of the water prior to its use for cooling or other purposes. This discharge must not cause the temperature change in receiving stream to exceed 3°C relative to an upstream control point. Also, this discharge must not cause the temperature of receiving stream to exceed 30.5°C (except as a result of natural causes), and this discharge must not cause the maximum rate of temperature change in receiving stream to exceed 2°C per hour (except as a result of natural causes).

Considering that Outfall 001 discharges to a receiving stream with a large critical low flow proportional to the effluent flow rate, there is no reasonable potential of exceeding any applicable WQ criteria. Therefore, effluent temperature is monitored on "report only" basis on the Discharge Monitoring Reports (DMRs). Considering the reported temperature will be the one of the effluent, an exceedance of the above mentioned 30.5°C water quality criteria is not necessarily a permit violation. The 30.5°C value applies to the receiving stream, not the effluent. Therefore, if the effluent temperature exceeds 30.5°C, the permittee should note in the "comments" section of the DMR that this is the temperature of the effluent. A temperature check in the receiving stream below the discharge point may be performed in order to prove facility's compliance with the Tennessee Water Quality Standards and should also be noted in the "comments" section of the DMR.

VI. ANTIDEGRADATION

Tennessee's Antidegradation Statement is found in the Rules of the Tennessee Department of Environment and Conservation, Chapter 1200-4-3-.06. It is the purpose of Tennessee's standards to fully protect existing uses of all surface waters as established under the Act.

The division has made a determination of the receiving waters associated with the subject discharge(s) and has found the receiving stream to be an available conditions water. Additionally, this water is fully supporting of its designated uses. The Department has maintained, and shall continue to assess, the water quality of the stream to assure that the water quality is adequate to protect the existing uses of the stream fully, and to assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.

VII. PERMIT DURATION

The proposed limitations meet the requirements of Section 301(b)(2)(A), (C), (D), (E), and (F) of the Clean Water Act as amended. It is the intent of the division to organize the future issuance and expiration of this particular permit such that other permits located in the same watershed and group within the State of Tennessee will be set for issuance and expiration at the same time. In order to meet the target reissuance date for the Holston-South Fork (D/S Of Watauga) watershed and following the directives for the Watershed Management Program initiated in January, 1996, the permit will be issued with an expiration date in 2018.

MTS

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